

Energy curing CRS^{max} system

Standard basic inks and binder variants for the energy curing offset spot colour ink mixing system

The energy curing **CRS^{max}** ink mixing system (Computer-Recipe-System) includes print ready base colours with high pigment concentration and individual fastness properties. Besides the colours, transparent white, opaque white and black can also be found in the assortment. These mono-pigmented basic colours with binder and photoinitiator variants fulfil the wide range of application requirements. In contrast with traditional colour communication systems the energy curing **CRS^{max}** allows full control on the resistance properties of the ink layer and gives special flexibility for creating a tailor made ink that fits perfectly to the required purpose.

The benefits of energy curing **CRS^{max}** system:

- Individual control on all the fastness properties
- Fast and safe matching of spot colour inks
- Smart opportunity to reduce left-over inks
- Gives possibility to rework the left-over inks that were mixed from energy curing **CRS^{max}** base inks
- Reduction of ink stock from uncountable spot colours to a few base colours
- Ability to switch between different systems using the same recipe

Applications / binder variants

The energy curing **CRS^{max}** is available in different binder and photoinitiator variants in order to fit to the market requirements and the curing technologies. The printed product and the technical circumstances define which CRS family is to be used.

The available energy curing **CRS^{max}** families are:

Product family code	Curing technology			
	Mercury lamp	Iron doped mercury lamp	Electron beam	LED lamp
UE	UE	UEH	--	UEL
UG	UG	---	UGB	---
UX	UX	---	---	---
UP	UP	---	---	---

Product family code + no further letters = mercury lamp inks Product family code + H = High sensitive inks
 Product family code + B = EB inks Product family code + L = inks for LED lamp

- UE** **NewV set** for sheet-fed offset, rotary and narrow web offset printing on absorbent substrate
- UG** **NewV pack** for sheet-fed offset, rotary and narrow web offset printing on absorbent substrate, for applications where the packaging design prevents the migration of substances from the ink, low odour, ITX free
- UX** **NewV maxX** for sheet-fed offset, rotary label (letterpress) and continuous forms printing on absorbent and non-absorbent substrate, ITX free
- UP** **NewV poly** for sheet-fed offset, rotary and narrow web offset printing on non-absorbent substrate, ITX free

Basic colours

Choosing the right base inks from the assortment has the highest importance.

For ordering, the code of the required variant has to be inserted into the sales code wildcard of the following two lists. (eg. 41UEH7827)

Basic colours for absorbent substrates

The following list shows the available colours (UE, UG, UEH, UGB, UEL) for absorbent substrates with their fastness and heat resistance properties:

The energy curing CRS ^{max} basic colours for <u>absorbent substrates</u> (UE, UG, UEH, UGB, UEL)						
Colour	Sales code	Heat resistance	Light fastness (WS)	Spirit	Solvent mixture	Alkali
Yellow	41...7801	< 140	7	+	/	+
Yellow	41...7802	180	5	+	+	+
Yellow	41...7803	180	5	+	+	+
Yellow	41...7827	200	7	+	+	+
Orange	41...7804	180	5	+	+	+
Orange	41...7828	220	7	+	+	+
Red	42...7883	< 140	5	+	-	+
Red	42...7830	180	3	+	/	-
Red	42...7806	< 140	6	+	/	+
Red	42...7808	160	5	+	+	-
Red	42...7809	160	5	+	/	+
Red	42...7829	200	6	+	+	+
Red	42...7812	200	7	+	+	+
Violet	43...7826	220	7	+	+	+
Blue	43...7818	< 140	4	-	-	+
Blue	43...7820	180	8	+	+	+
Green	44...7822	200	8	+	+	+
Black	49...7800	200	8	+	+	+
Opaque white	47...7840	na.	8	+	+	+
Transparent white	40...7850	na.	na.	+	+	+

+ yes - no /= conditionally recommended na. not applicable

For special applications, water-based primers can contain solvents. The energy curing CRS^{max} basic colours with resistance features of (/) or (-) for solvent mixture can show colour change when they are combined with these types of varnishes in one application. Please contact your varnish supplier about the necessary resistances of the ink prior to production.

Basic colours for non- absorbent substrates and mixed applications

The following list shows the available colours for non-absorbent substrates (UP, UX) and for mixed applications (UX) when absorbent and non-absorbent substrates are also used:

The energy curing CRS ^{max} basic colours for <u>non-absorbent substrates and mixed applications</u> (UP, UX)						
Colour	Sales code	Heat resistance	Light fastness (WS)	Spirit	Solvent mixture	Alkali
Yellow	41...6601	< 140	7	+	/	+
Yellow	41...6602	180	5	+	+	+
Yellow	41...6627	200	7	+	+	+
Yellow	41...6603	180	5	+	+	+
Orange	41...6604	180	5	+	+	+
Orange	41...6628	220	7	+	+	+
Red	42...8013	< 140	5	+	-	+
Red	42...0030	180	3	+	/	-
Red	42...6606	< 140	6	+	/	+
Red	42...6607	160	5	+	+	-
Red	42...6608	160	5	+	+	-
Red	42...6609	160	5	+	/	+
Red	42...6629	200	6	+	+	+
Red	42...6610	180	6	+	+	+
Red	42...6613	170	7	+	+	+
Red	42...6612	200	7	+	+	+
Violet	43...6626	220	7	+	+	+
Blue	43...6618	< 140	4	-	-	+
Blue	43...6621	170	8	+	+	+
Blue	43...6620	180	8	+	+	+
Green	44...6622	200	8	+	+	+
Black	49...4100	200	8	+	+	+

+ yes - no /= conditionally recommended

For special applications, water-based primers can contain solvents. The energy curing CRS^{max} basic colours with resistance features of (/) or (-) for solvent mixture can show colour change when they are combined with these types of varnishes in one application. Please contact your varnish supplier about the necessary resistances of the ink prior to production.

Food and confectionery packaging

The products listed above are not suitable for printing primary food packaging. More information on the subject of packaging for food, cosmetics, pharmaceutical products and tobacco can be found in the information sheet *50.G.002 NewV for food packaging* and on the webpage of the European Printing Ink Association: www.eupia.org.

Classification

Safety data sheet is available on request.

Shelf life

12 months from the delivery date if the container is not opened.

Store between 5 - 25°C. Higher storage temperature may reduce shelf life. Protect from frost and sunlight. The cans need to be closed back immediately after usage.

Packaging

2,5 kg one-way can

25 kg one-way can

200 kg one-way drum